

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Currently Amended) A system for seismic exploration of a submerged sub-surface including comprising:

Aa plurality of bases located at predetermined seabed positions, each base comprising,

an elongate stem penetrating the seabed,

at least a seismic sensor within said stem,

a housing connected to an upper end of the stem, and

a radially extending support zone connected to the upper end of the

stemhousing, said upper end projecting from the seabed; and

a respective plurality of modules each incorporating a data storage unit and a power source, each module being mechanically and electrically connected to the upper end of said stem, said module being capable of being connected to, and disconnected from, the base by an underwater vehicle,

wherein said module is configured to be disposed within said housing.

2. (Previously Presented) A system according to Claim 1, in which the base

includes a mooring element for an underwater vehicle.

3. (Previously Presented) A system according to Claim 2, in which the module is fitted onto the base by means of a sliding motion then by a rotation about an axis parallel to the direction of the sliding motion.

4. (Previously Presented) A system according to Claim 3, in which the support zone presents orifices extending in a direction not perpendicular to a longitudinal direction of the stem.

5. (Currently Amended) A system according to Claim 1, in which the ~~upper end of the base comprises a housing~~ includes a slot for receiving a handle of the module.

6. (Currently Amended) A system according to Claim 51, comprising means for sealing the housing in the absence of a module.

7. (Previously Presented) A system according to Claim 1, in which the support zone presents an acoustic signature enabling identification thereof by a sonar carried by an underwater vehicle.

8. (Previously Presented) A system according to Claim 1, in which the

module has a density roughly equal to 1.

9. (Previously Presented) A system according to Claim 1, in which the module includes a clock.

10. (Previously Presented) A system according to Claim 1, in which the module includes means for transmitting and/or receiving of an acoustic signal.

11. (Previously Presented) A system according to Claim 1, in which the stem of the base has a height ranging between 1 and 40 metres.

12. (Currently Amended) A system according to Claim 1, in which the module is electrically connected to the base by a contactless coupling.

13. (Currently Amended) A system according to Claim 12, in which the ~~module is coupled to the base by contactless coupling~~ is a magnetic link.

14. (Previously Presented) A system according to Claim 1, comprising additional bases connected to at least one of said bases by cable.

15. (Currently Amended) A method of seismic exploration of a submerged sub-surface, comprising the steps of:

lowering near a predetermined seabed position, a base having an elongate stem and at least a seismic sensor within said stem, a radially extending support zone being connected to a housing connected to the upper end of the stem,

anchoring the stem to the seabed while keeping its upper end projecting from the seabed,

connecting a module including data storage means and a power source to the housingupper end of the stem by means of an underwater vehicle,

repeating the steps above for each seabed position at which seismic data must be acquired, and

disconnecting said modules from the respective bases after completion of the seismic acquisition by means of an underwater vehicle.

16. (Previously Presented) A method according to Claim 15, in which the base is anchored to the seabed by free fall towards the seabed.

17. (Currently Amended) A method according to Claim 15, in which the base is anchored to the seabed by driving said stem onto into the seabed.

Claims 18-35 (Cancelled)